

CLAIMS

1. A film-forming method for a copper oxide thin film low-friction material, characterized by forming a copper oxide thin film mainly containing CuO on a substrate for deposition, in vacuum by plasma deposition.
2. The film-forming method according to Claim 1, wherein the copper oxide thin film is formed while a mixed gas of a rare gas and oxygen is introduced.
3. The film-forming method according to Claim 1 or 2, wherein the crystal of the copper oxide thin film is oriented.
4. The film-forming method according to any one of Claims 1 to 3, wherein the copper oxide thin film is formed by plasma sputtering by using CuO as a target.
5. A copper oxide thin film low-friction material which is formed on a substrate, characterized by containing mainly CuO in its composition and having friction coefficients of 0.06 or less both in the atmosphere and in vacuum at 3×10^{-5} Pa.
6. The copper oxide thin film low-friction material according to Claim 5, wherein the copper oxide thin film is formed by plasma deposition.
7. The copper oxide thin film low-friction material according to Claim 5 or 6, wherein the crystal of the copper oxide thin film is oriented.
8. A sliding device, characterized by having a sliding face coated with the copper oxide thin film low-friction material according to any one of Claims 5 to 7.